AMENDMENT TO THE CLAIMS

1.(Previously Presented) An assembly apparatus comprising:

a frame;

a carousel base rotationally coupled to the frame;

a carousel coupling device to removably couple a component carousel including a plurality of assembly components to the carousel base;

an assembly arm movably coupled to the frame; and

a driver coupled to the assembly arm to move the assembly arm between first and second positions to sequentially unload the plurality of assembly components from the component carousel and assemble the unloaded assembly components.

2.(Previously Presented) The assembly apparatus of claim 1 wherein the component carousel supports a plurality of stacks of the plurality of assembly components at spaced locations arranged about a center point and further comprising:

a motor coupled to the carousel base to rotationally position the plurality of stacks of assembly components for assembly.

3.(Previously Presented) The assembly apparatus of claim 1 wherein the carousel coupling device comprises a vacuum source operably coupled to the rotatable carousel base to supply vacuum pressure in an engaged mode to secure the component carousel to the carousel base and to release the vacuum pressure to remove the component carousel.

4.(Previously Presented) The assembly apparatus of claim 2 further comprising an indexer coupled to the carousel base to align individual components from the plurality of stacks of the plurality of assembly components relative to the assembly arm.

5.(Previously Presented) The assembly apparatus of claim 1 and further comprising the component carousel including a plurality of elongated component containers configured to contain the plurality of assembly components removably coupleable to the component carousel and positionable at spaced locations about a rotation axis of the carousel base.

6.(Previously Presented) The assembly apparatus of claim 1 wherein the apparatus includes a plurality of carousel bases rotationally coupled to the frame and a plurality of carousel coupling devices to removably support multiple component carousels relative to the plurality of carousel bases and the driver moves the assembly arm between the plurality of carousel bases to unload the multiple component carousels on the plurality of carousel bases.

7.(Previously Presented) The assembly apparatus of claim 1 and further comprising the component carousel and the component carousel containing discs for assembly in a spindle motor of a data storage device.

8. (Currently Amended) The assembly apparatus of claim 7 wherein the component carousel containing the discs includes a plurality of spaced latch assemblies about a circumference of the component carousel containing the discs to removably connect a plurality of disc containers storing a plurality of stacked discs to the component carousel at concentric spaced locations.

9.(Currently Amended) The assembly apparatus of claim 8 wherein the plurality of disc containers include covers and the apparatus includes a cover detatcher to detach the disc container covers prior to assembling the discs from the plurality of disc

containers.

10.(Previously Presented) The assembly apparatus of claim 1 and comprising the component carousel and the component carousel containing spacers for assembly in a spindle motor of a data storage device.

11.(Currently Amended) The assembly apparatus of claim 1 wherein the apparatus is adapted to assembly components of a disc stack of a spindle motor and further comprising:

a plurality of carousel bases including a carousel base adapted to support a component carousel for discs and a carousel base adapted to support a component carousel for spacers;

a plurality of assembly arms including an assembly arm coupled to the carousel base adapted to support the component carousel for the discs to assemble the discs and an assembly arm coupled to the carousel base adapted to support the component carousel for the spacers to assemble the spacers;

a plurality of drivers coupled to the plurality of assembly arms to move the plurality of assembly arms between the plurality of carousel bases and a loading station; and

a controller coupled to the plurality of drivers to coordinate operation of the plurality of assembly arms to alternately assemble the discs and the spacers.

12.(Currently Amended) The assembly apparatus of claim 11 and comprising the component carousel for the discs and the component carousel for the discs including a plurality of circumferentially

spaced latch assemblies to removably couple a plurality of disc containers to the component carousel for the discs.

13.(Currently Amended) The assembly apparatus of claim 12 wherein the disc containers house a stack of coaxially aligned unassembled discs and the assembly apparatus further comprises an indexer to incrementally position the carousel base adapted to support the component carousel for the discs to sequentially unload individual discs in the stack of unassembled discs.

14.(Currently Amended) The assembly apparatus of claim 11 and comprising ~~a~~ the component carousel for spacers including a plurality of spacer posts arranged about a center point and sized to support a plurality of stacked spacers and including a motor coupled to the carousel base to move the component carousel for spacers to align the plurality of stacked spacers for assembly.

15.(Currently Amended) The assembly apparatus of claim 14 further comprising an index rod operably coupled to the component carousel for spacers to push the spacers towards an extended end of the plurality of spacer posts for assembly.

16.(Canceled)

17.(Canceled)

18.(Canceled)

19.(Canceled)

20.(Canceled)

21.(Previously Presented) An assembly apparatus comprising:

an assembly arm and assembly arm driver operably coupled to the assembly arm to operate the assembly arm to unload components from the assembly apparatus and load components in an unassembled device; and

means for intermittently stocking the assembly apparatus with a supply of the components for assembly by the assembly arm.

22.(Previously Presented) The assembly apparatus of claim 6 wherein the apparatus includes a detector to detect when the multiple component carousels are empty and the assembly arm is coupled to a controller which is configured to shift operation of the assembly arm from one of the multiple component carousels to another of the multiple component carousels supported on the plurality of carousel bases based upon feedback from the detector.

23.(Previously Presented) An assembly apparatus comprising:

a frame;

a plurality of carousel bases rotationally coupled to the frame and rotatable about spaced rotation axes;

an assembly arm movably coupled to the frame;

an assembly arm driver coupled to the assembly arm to operate the assembly arm to unload components from carousels coupled to the plurality carousel bases; and

a controller operably coupled to the assembly arm and configured to sequentially operate the assembly arm between the plurality of carousel bases.

24.(Previously Presented) The assembly apparatus of claim 23 wherein the plurality of carousel bases support disc carousels and further comprising a plurality of disc unloaders coupled to the

plurality of carousel bases and the plurality of carousel bases including an elevator coupled to the plurality of carousel bases to position sequential staked discs on the disc carousels relative to the plurality of disc unloaders.

25.(Previously Presented) The assembly apparatus of claim 23 including a plurality of disc carousels removably coupled to the plurality of carousel bases and the plurality of disc carousels removably supporting a plurality of disc containers including a plurality of stacked discs.

26. (Previously Presented) The assembly apparatus of claim 25 wherein the plurality of disc containers are removably supported by a plurality of latch assemblies.

27.(Previously Presented) An assembly apparatus comprising:

a frame;

a carousel base rotationally coupled to the frame;

a carousel coupling device to removably couple a component carousel including a plurality of assembly components to the carousel base; and

an assembly arm movably coupled to the frame to unload the plurality of assembly components from the component carousel removably coupled to the base.

28.(Previously Presented) The assembly apparatus of claim 27 and further comprising:

a component carousel including a plurality of latching assemblies to removably couple a plurality of component containers thereto.